## ABSTRACT

The invention relates to a device for image guided automated insertion of an elongated an elongated hollow needle to a desired location in an animal body for effecting radiation therapy of cancerous tissue in said body comprising needle positioning means for positioning said needle having a distal end and a proximal end relative to said desired location; needle drive means for driving said needle with its distal end towards said desired location; and real time imaging means for creating and presenting an image of said desired location and the position of the distal end of said needle during insertion of said needle.

It is an object of the invention to provide a device for inserting a needle in an animal body, wherein a better access to the treatment site in the patient's body is obtained thus improving the possibilities in configuring a treatment plan for said patient and wherein the patient is suffering lesser trauma, bleeding and discomfort.

According to the invention these objects are met as the device is arranged for performing subsequent insertions using only one single needle, wherein the needle drive means are arranged for retracting said single needle from said desired location, and wherein said needle positioning means are arranged for repositioning said single needle relative to a subsequent desired location prior to a subsequent insertion.